PRIVACY DISTRIBUTED SYSTEM AND RECORDING MEDIUM

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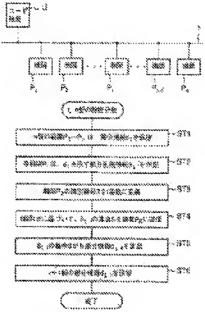
Abstract of **JP 2001034164 (A)**

PROBLEM TO BE SOLVED: To realize a distributed decoding and signature by arbitrary (t) agencies among (n) agencies without calculating secret keys at environments where distributors are not present. SOLUTION: In this privacy distributed system, (n) respective agencies P1 to Pn preserve one of partial information di (0<=i<=n) of an (n, n) type and the partial information di are made to be t (r+1) of partial random numbers Sj of a (t, n) type and these (r+1) pieces of partial random numbers Sj are distributed to respective agencies P1 to Pn based on t-ary displays (tj-th value k, 0<=k<=t-1, 0<=i<=r) of identification numbers (z) of the respective agencies P1 to Pn and (r+1) of partial information dj, k are obtained by collecting partial random numbers distributed each other for every figure tj of the t-ary displays.; Next, a user device U transmits ciphered data C by selecting (t) of agencies Tz and the (t) of agencies Tz answer partial outputs Xz which are obtained by them by arithmetically processing the chipherd data C based on the partial information di, k respectively to the user device U then, the device U composes the (t) of partial outputs Xz to obtain a decoded result.



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